

United States Environmental Protection Agency

Region 5

Air and Radiation Division

77 West Jackson Boulevard

Chicago, IL 60604

DATE: SEP 29 2014

SUBJECT: Inspection of ExxonMobil Oil Corporation - Des Plaines Terminal
Arlington Heights, Illinois

FROM: Gregory Gehrig, Environmental Engineer
Air Enforcement and Compliance Assurance Section (WI/MI)

THRU: Sarah Marshall, Chief *SM*
Air Enforcement and Compliance Assurance Section (WI/MI)

TO: File

Facility: ExxonMobil Oil Corporation - Des Plaines Terminal
Location: 2312 Terminal Drive, Arlington Heights, Illinois

Inspection Date: September 18, 2014

Inspection Team: Patrick Miller, Environmental Engineer, EPA Region 5
Gregory Gehrig, Environmental Engineer, EPA Region 5

Facility Attendees: Ken Copeland, Terminal Operator, ExxonMobil Oil Corporation

Purpose of the Inspection:

To investigate, inspect, and determine whether ExxonMobil Oil Corporation - Des Plaines Terminal (Exxon) is in compliance with the Illinois State Implementation Plan (SIP) and the Federal Clean Air Act (CAA). This includes interviewing Exxon personnel and a facility tour.

Environmental Justice:

Per EJSCREEN, this facility is not in an EJ area of concern.

Overview of Company:

Exxon is a liquid petroleum product storage and dispensing facility. The facility operates 24 hour per day, 7 days per week.

Opening Conference:

Patrick Miller and Greg Gehrig (EPA Inspectors) arrived at Exxon at approximately 1:00 pm on September 18, 2014. EPA Inspectors were greeted by Ken Copeland at the facility office. After presenting credentials, the EPA Inspectors explained the purpose of our visit.

The opening conference was attended by Mr. Copeland. During the opening conference the EPA Inspectors stated this was an unannounced inspection and that questions would be asked about the facility's processes and a tour of the loading rack and the flare would be incorporated into the inspection. A review of the facility's processes was requested so the EPA Inspectors could understand the Exxon petroleum dispensing and volatile organic compound (VOC) venting operations to the vapor combustor unit (VCU). Note that the Illinois EPA Permit No. 95060060 (Permit) refers to the VCU as a 'flare'; however, it is a VCU.

Facility Operations:

Exxon has one fuel loading rack, 13 aboveground storage tanks (tanks) and one VCU used to control vapors from dispensing operations. Products at the facility include gasoline, diesel fuel, bio-diesel and ethanol. The facility operates 24 hour per day, 7 days per week. The facility offloads products from a pipeline into tanks. Products are then temporarily stored in tanks until they are dispensed into tank wagons. The facility typically loads 250 to 300 tank wagons per day.

The VCU is manufactured by John Zink and uses assist gas and a blower for assist air. The VCU is interlocked with the loading rack such that the pilot light must be on to allow venting to the VCU. The VCU combustion zone is at the base of a stack where vapors arrive from the loading rack. Continuous temperature readings in the stack are taken approximately 20 above the combustion zone. The continuous readings are collected by a data historian on the VCU. Facility personnel read the temperature each morning and ensure that it can reach a temperature of 1200 F. A graphical printout of temperature readings are placed in a compliance manual monthly. The operation manual and temperature printouts were reviewed. No minimal operating temperature was found in either the operation manual or the Permit. No air or gas assist rates were listed in the operation manual.

Mr. Copeland indicated that he had never seen the VCU smoke and he was unaware of any incidents of the VCU smoking. He indicated that it is conceivable the VCU could smoke if the assist air or gas was not added correctly to the vent gas. He was unaware of any performance tests being conducted on the VCU.

Facility Tour:

After the overview of Exxon's process, we conducted tour of the VCU and loading rack. The tour began at approximately 1:35 pm. Mr. Copeland represented Exxon on the tour. EPA Inspectors used a FLIR gas-imaging camera during the tour to detect any emissions of VOCs from The VCU. No significant emissions of VOCs from the VCU were noted in FLIR camera footage at the time of the inspection.

Tour Follow-up and Closing Conference:

The closing conference was conducted at approximately 1:50 pm. Mr. Copeland represented Exxon at the closing conference. EPA indicated that there was no immediate evidence of improper VCU operation based on the FLIR images obtained, although we indicated we needed to review these videos in greater detail once we returned to our offices.

Exxon indicated that none of the information discussed and materials obtained needed to be treated as confidential business information. Exxon was informed that a CAA Section 114 Information Request may be sent to the facility.

EPA departed the facility at approximately 2:00 PM.

Records Obtained:

1. Operation manual Section IV design basis and performance summary (2 pages)
2. FLIR gas imaging recordings, two videos
3. Eight photographs
4. VCU temperature log, August 29 to 31, 2014.